

Cancer in Women of Color: Overview

INTRODUCTION

Cancer is the second leading cause of death among women of all races in the United States, after heart disease (National Center for Health Statistics [NCHS], 2000). The burden of cancer is not distributed equally—many racial and ethnic minority groups suffer from higher incidence, higher mortality, and poorer survival rates than White Americans (Miller et al., 1996). Minority groups have not experienced the reductions in cancer incidence and mortality seen in the majority group in the 1990s (Ries et al., 2000; Haynes and Smedley, 1999). Significant progress in reducing the toll of cancer—in terms of suffering, loss of life, and high health care costs—depends on reducing health disparities as better strategies for prevention, early detection, and treatment of cancer become available (Haynes and Smedley, 1999).

The two central goals of the *Healthy People 2010* program of the National Institutes of Health (NIH) are: (1) to increase the quality and years of healthy life, and (2) to eliminate health disparities within this decade. The National Cancer Institute (NCI) and other federal health research and service agencies are working aggressively to improve their understanding of the causes of health disparities and to develop effective interventions to eliminate them (NCI, 2001a,b; Office of Behavioral and Social Sciences Research, 2001; Centers for Disease Control and Prevention [CDC], 2001b; Office of Research on Minority Health, 2001; Health Resources and Services Administration [HRSA], 2000). An important step forward in these efforts involves providing a comprehensive overview of the current situation and recent trends, in a form that is accessible to scientists, health professionals, public health experts, and communities of color. This is the goal of the *Cancer in Women of Color* monograph, which provides state-of-the-science information about cancer in the context of the everyday lives and social and cultural circumstances of women from nine minority groups: Mexican American, Puerto Rican, Cuban American, African American, Asian American, Native Hawaiian, American Samoan, American Indian, and Alaska Native.

This overview synthesizes and summarizes the key information about each of the nine minority groups included in the monograph. It provides a broad perspective to help readers better understand the changing demographic, cultural, health care, and cancer-related factors that contribute to health disparities, and those that hold promise for reducing any differences. Information in this chapter describes the various populations, their cancer profiles, and the status and limitations of relevant data. Further, it contains discussions of the major historical and cultural influences on the lives of women of color, to provide lessons from past efforts and guide future intervention strategies to improve the health and quality of life for minority women.

DESCRIPTION OF POPULATIONS

Population Size and Growth

The United States is more racially diverse than ever before. Non-White residents comprised 30.9 percent of the total population in 2000, up from 24.4 percent in 1990 (U.S. Census Bureau, 2001). Minority racial and ethnic groups grew at a rate of 43.2 percent over the past decade, more than three times faster than the overall 13.1 percent rate of population growth, and more than 10 times faster than the 3.5 percent increase in Whites (U.S. Census Bureau, 2001).

Table 1 shows the total year 2000 population size and the estimated number of adult women for each of the nine groups discussed in this monograph. The number of adult women in these groups ranges from as few as 24,500 Alaska Native women to 15.3 million African American women. The population growth in all of these minority groups is higher than the national average, with increases ranging from 17 to 67 percent in the decade since 1990. An important adjustment in the race/ethnicity categories used in the 2000 Census makes it difficult to pinpoint the changes for some groups. For the first time in a decennial census, individuals could report more than one race; this has a marked effect on groups that are most likely to include mixed-race persons, most notably Native Hawaiians and American Indians (see Table 1). While more precise major race categories were available for the 2000 U.S. Census, combination categories for Native Hawaiian/Other Pacific Islanders and American Indian/Alaska Natives do not

distinguish between the specific ethnic groups described in this monograph. (Detailed subgroup data are expected to be released in the future.)

Another feature of the racial/ethnic minority groups discussed in this monograph is geographical distribution. Two groups, Puerto Ricans and American Samoans, include the people living in U.S. Territories (Puerto Rico in the Caribbean, and American Samoa in the Pacific Ocean) as well as those who live on the U.S. mainland. Most Mexican Americans live in states in the South and West, as do the majority of American Indians. Two thirds of Cuban Americans live in Florida. Most Asian Americans live in California, Hawaii, and New York, although new immigrants also are settling in other regions. The great majority of Native Hawaiians live in Hawaii, and most Alaska Natives live in Alaska, though migration to other locations by members of these groups is becoming more common. Indeed, because of geographical clustering, it often is difficult to disentangle environmental and locality-related factors from ethnicity-related factors when considering the life context of minority women.

Demographic and Social Indicators

Racial differences often reflect differences in socioeconomic status between majority and minority groups. Minority women tend to be younger and less educated, live in poverty more often, and have less access to health care (see Table 2).

Age. With the exception of Cuban Americans, all of the groups have younger median ages than U.S. women overall.

Education. The percentage of high school graduates among all U.S. groups increased from 77.6 percent to 84.1 percent between 1990 and 2000 (U.S. Census Bureau, 2001), while almost all of the minority groups had significantly lower rates of high school graduation. Only Asian Americans have higher rates of high school graduation than the U.S. average, and they also have higher rates of college graduation than American adults overall (44 percent compared with 25.6 percent) (U.S. Census Bureau, 2001).

Income. Minority women are more likely to live in poverty than others in their states and in the Nation as a whole. The most recent national figures (1998) report that 11.8 percent of Americans live below the poverty level (U.S. Census Bureau, 2001). Poverty rates for women in eight of the nine minority groups range from 14 percent to 59 percent. Only Asian American women have lower poverty rates than the U.S. average; however, this summary figure masks the wide variation among Asian American ethnic groups, where some immigrant groups experience much higher rates of poverty than others.

Access to Health Care (usually measured by having health insurance and/or a regular source of care). Between 85 and 90 percent of American women have a regular source of health care (NCHS, 2000). Although comparable data are not available for all minority groups, data suggest that overall, people in these groups are less likely to have health insurance and more likely to be underinsured and to lack a regular source of health care. Moreover, obstacles such as great distances to health care providers, language barriers, and the absence of culturally sensitive health care further disadvantage minority women.

Major Historical and Cultural Influences

In order to better understand the life circumstances contributing to health disparities among women of color and to identify potential remedies, it is necessary to be aware of the major historical and cultural influences on minority ethnic and racial groups. Race is perhaps the most defining social issue in the history of the United States. Historically, White populations (usually Europeans) have invaded and subordinated other racial groups—for one example, by bringing persons of color to their land to work as slaves (Freeman, 1998). Some minority groups came to the United States through political means, such as annexation of land or through immigration from their home countries as political or economic refugees.

Table 3 gives a brief overview of the key historical influences, cultural values, and influences on health care use for minority women. Historical disadvantages, such as racism and other forms of oppression, are commonalities for African Americans, American Indians, Alaska Natives, and Native Hawaiians. Adverse living conditions, displacement from their land, and the introduction of disease by nonindigenous

peoples are common to Mexican Americans, Native Hawaiians, American Indians, and Alaska Natives. Immigrant groups such as American Samoans, Puerto Ricans, and Asian Americans have lost their former rural and subsistence lifestyles to urbanization for the sake of securing employment. Traditional spiritual and communal values have fallen prey to acculturation for many minorities. While some minorities have strong traditions of male domination, women usually have been powerful stabilizing influences within their families.

Core cultural values that emphasize social harmony, close families, interdependence, religiosity, and a holistic view of health are common to most ethnic minorities. Traditional healing practices and use of complementary and alternative medicine (CAM) are common but variable within and across groups (Maskarinec et al., 2000). The extent of traditional practices varies widely across groups, locations, living circumstances, and level of acculturation. However, all groups have unique influences that affect the acceptability of Western medicine—mainly culturally based beliefs about diseases (including cancer); communication styles that may differ from those of providers; language barriers; and actual or anticipated discrimination.

CANCER INCIDENCE, MORTALITY, AND RISK FACTORS

The decade of the 1990s marked a turning point in cancer incidence and mortality in the United States (Ries et al., 2000). After increasing steadily until 1992, cancer incidence rates for all cancer sites decreased an average of 1.3 percent per year from 1992 to 1997. Earlier rates of increased deaths slowed from 1984 to 1991, and rates of death declined 0.6 percent per year from 1991 to 1995. They declined much more rapidly from 1995 to 1997, at the rate of 1.7 percent per year. (Ries et al., 2000). While the continuing declines in overall cancer incidence and mortality rates are encouraging, ethnic/racial minority groups have not benefited as much as the overall population. Of equal importance, there are no available population-based cancer statistics for some groups (Puerto Ricans, Cuban Americans, and American Samoans), and no current data for other groups (Native Hawaiians and Alaska Natives). With these limitations, this section summarizes recent cancer incidence, mortality, and risk factor information for minority women.

Cancer Incidence and Trends

Tables 4A and 4B summarize current cancer incidence rates for White and minority women for all cancer sites combined and for breast, lung, colorectal, and cervical cancers. It is not possible to produce cancer rates for Hispanic subgroups (e.g., Mexican American, Cuban American) because sufficiently detailed denominator data (population estimates) are not available in noncensus years. Table 4A shows 1992-98 data while table 4B shows 1988-92 data (based on the decennial census) for more detailed racial/ethnic groups. Alaska Native women have the highest overall cancer incidence rates across groups, followed by White women and Black women for the period 1992-98.

Cancer Mortality and Trends

Tables 5A and 5B summarize current cancer mortality rates for White and minority women for all sites combined and for breast, lung, colorectal, and cervical cancers individually. For all cancers combined from 1992 to 1998, White women had age-adjusted mortality rates of 138.0 per 100,000 women. The rates were higher for African Americans (166.6 for 1992 to 1998), Native Hawaiians (168.0 for 1988 to 1992), and Alaska Natives (181.4 for 1992 to 1998). Asian American, Pacific Islander, American Indian, and Hispanic women had substantially lower cancer mortality rates. While Alaska Natives had the highest mortality rates for cancers of the colon and rectum, as well as for the lung and bronchus, African Americans had the highest mortality rates for cancers of the breast and cervix.

Survival

Cancer mortality has declined and 5-year survival rates have increased for White and minority women (NCI/SEER, 2000). Minority women's survival rates have improved more slowly than White women's, however, and survival rates still lag behind in certain groups. Overall cancer survival rates from 1992 to 1997 for White women were 62 percent, but they were only 46 percent for American Indian and Alaska Native women and 49 percent for African American women. Asian American women's survival rates varied considerably, from 59 to 65 percent among the major subgroups. This general pattern was similar

for all of the major female cancer sites (breast, colorectal, lung, and cervix) (NCI/Surveillance, Epidemiology, and End Results [SEER], 2000).

Most differentials in mortality and survival are due to cancers being diagnosed at a later stage.

Socioeconomic factors, along with cultural beliefs and attitudes, account for much of the effect of race on late-stage diagnoses among African American women with breast cancer (Lannin et al., 1999). This also has been true for Native Hawaiian women, for whom lower cancer survival rates have been largely due to stage at diagnosis and socioeconomic status (Meng et al., 1997b). Although Native Hawaiian women still have a higher risk of dying from breast cancer than other ethnic groups, the ethnic survival differences narrowed from 17 to 4 percent between 1960 and 1983 (Meng et al., 1997a).

Risk Factors and Early Detection

To the extent that differences in behavioral risk factors and use of proven early detection strategies contribute to disparate cancer prevalence and mortality rates, the implications for intervention are clear. The use of diagnostic techniques such as mammography and Pap tests, and behavioral factors such as tobacco use and dietary habits and weight control, are key variables that may explain some ethnic disparities in women's cancers. Table 6 presents data about these practices for women of color in the nine minority groups.

In 1998, 68.1 percent of White women reported having had a mammogram within the previous 2 years (NCHS, 2000). Rates were lower for minority women, ranging from 44.6 percent to 64 percent; however, some of the differences have narrowed through the 1990s. The creation of the Centers for Disease Control and Prevention's (CDC) National Breast and Cervical Cancer Early Detection Program, which in 1990 started providing cancer screening services to underserved women, substantially increased the percentage of women in low-income households who reported having had a recent mammogram (CDC, 2001a). Eighty percent of White women had had a Pap test within 3 years as of 1998 (NCHS, 2000), similar to the rates for African American, Cuban American, Puerto Rican, American Indian, and Native

Hawaiian women. Lesser use of Pap tests was found among Alaska Natives, American Samoans, Mexican Americans, and some Asian American groups.

Twenty-two percent of White women were smokers in 1998, down from 27.7 percent in 1985 (NCHS, 2000). Smoking rates were lower among Mexican American, Asian American, American Samoan, and African American women. However, higher smoking rates were found in Alaska Native, Puerto Rican, and Native Hawaiian women. American Indian tribes vary widely in their tobacco use (from 20 to 37 percent in recent surveys). Use of smokeless tobacco is a problem among women in some American Indian groups.

There is no adequate national source of recent population-based dietary data for women in various racial/ethnic groups, although dietary factors account for as many as 35 percent of all cancers (Byers, 2000). Data from the Multiethnic Cohort Study in Hawaii and Los Angeles provide some comparative information for relatively large groups of Latino, African American, Native Hawaiian, and Asian American women (Kolonel et al., 2000). Mexican Americans and Native Hawaiians consume high-calorie and high-fat diets, but they also eat large amounts of fruit and vegetables. Asian Americans consume diets lower in fat, and African Americans eat few vegetables but many varieties of fruit (Kolonel et al., 2000). For many ethnic minorities, acculturation to an “American diet” brings higher intake of animal fat and “junk foods,” whereas traditional Asian, Hispanic, Native Alaskan, and Native Hawaiian diets tend to be high in complex carbohydrates and relatively low in fat.

Obesity is a risk factor for diabetes and cardiovascular disease, though its relationship to cancer incidence and mortality is rather complex. Where obesity reflects low intake of cancer-protective foods (e.g., fruit and vegetables and complex carbohydrates), it is likely to increase the risk of developing cancer. Obesity rates are high in Hispanic (except for Cuban American), African American, Native Hawaiian, American Samoan, American Indian, and Alaska Native women. Data from 1994 for White women show rates of obesity at 23.5 percent, with overweight (including obesity) at 48 percent (NCHS,

2000). Only Asian American women from certain countries of origin and Cuban American women are less often overweight and obese than White women.

Findings from observational studies suggest that physical activity lowers overall cancer incidence and mortality rates (Thune & Furberg, 2001). Current physical activity recommendations suggest that every adult accumulate at least 30 minutes of moderate-intensity physical activity at least 5 days of the week (U.S. Department of Health and Human Services [USDHHS, 1996]). While there is variation in levels of physical activity among different racial/ethnic populations, and the barriers faced may also vary considerably, in general less than one third of all Americans are meeting the current levels of moderate-intensity physical activity recommended.

Behind the Numbers: Subgroup Variation

There are more data on cancer incidence, mortality, survival, risk factors, and early detection among racial/ethnic minority women now than ever before. Even so, some racial/ethnic categories reflect numerous and diverse subgroups. One source of variation is geographical location. For example, across states, the proportion of adults with no health insurance can range several-fold within a single race/ethnicity category such as American Indians/Alaska Natives (Bolen et al., 2000). A second source of variation is ethnic subgroups, such as Indian tribes and Asian Americans' countries of origin. Asian Americans' mammography use reported in 1996 ranged from 50 percent for Vietnamese women to 70 percent for Chinese women. Age-adjusted incidence rates for lung cancer in American Indian women ranged from 18.3 per 100,000 in Pima Indians to 53.5 per 100,000 in Sioux tribes. Other sources of variation include socioeconomic status, cultural beliefs, and accessibility of health services. It may not be possible currently to obtain population-based information for all relevant factors in various subgroup populations, and it is crucial to exercise caution in generalizing reported data to unique subgroups in distinct locales. Published data must be supplemented with primary sources of surveillance and needs assessment information before undertaking awareness campaigns and preventive interventions.

CANCER DATA SOURCES AND NEEDS

Accurate and timely cancer data are critical to efforts to reduce cancer-related health disparities among women (Haynes and Smedley, 1999). High-quality population data for denominators requires recent census data. As indicated by the enormous population growth and shifts in racial and ethnic groups, considerations relating to cancer causation and outcomes should be based on up-to-date data (obtained no earlier than the 2000 U.S. Census). Advances in information technology are accelerating the pace of new data releases, and require continual attention from health researchers, practitioners, and policy makers. Disparities are most apparent in the context of trends in the overall population and within comparable majority ethnic groups. Thus, data for single groups should not be considered in isolation.

Available Cancer Data Sources and Needs

The NCI recently expanded the Surveillance, Epidemiology, and End Results (SEER) registry program so that it now covers 26.3 percent of all races in the United States (NCI/SEER, 2000). Coverage of American Indians and Native Alaskans, Asian American subgroups (Japanese, Filipino, and Chinese), Native Hawaiians, and Hispanics now exceeds that of the general population. Table 7 shows the extent of SEER registry coverage for the nine minority groups described in this monograph. Data are available in expanded race categories, though age-adjusted rates for some groups (e.g., Mexican Americans, Puerto Ricans, Cuban Americans) have not yet been published. As noted above, national data for racial/ethnic groups may be insufficient to describe the cancer experience in specific locations, tribes, and people from various countries of origin. Some observers have called for including socioeconomic status as a stratification variable in cancer statistics. This would make it possible to disentangle race/ethnicity and socioeconomic status as correlates of cancer causation and outcomes (Krieger et al., 1999; Liu et al., 1998).

Accurate cancer incidence, mortality, and survival data depend on accurate census data. The U.S. 2000 Census brought remarkable advances in identifying racial groups, but also carried new complexities that must be addressed. The use of self-identification for mixed-race persons as “race in combination with

other races” presents challenges, among them the question of reporting cancer cases by single- and mixed-race ethnic groups. Health care privacy laws and concerns about discrimination must be considered in the attempt to collect more accurate data on cancer diagnoses, treatments, and outcomes.

A further consideration in cancer research with minorities involves the need to increase minority participation in research, including behavioral and risk factor surveys, as well as in clinical trials (Haynes and Smedley, 1999; Underwood and Alexander, 2000). Because the more-educated persons of all races generally are more willing to participate in scientific research, it also is important to conduct studies that are large enough to engage respondents at various educational levels (Kolonel et al., 2000).

REDUCING CANCER-RELATED HEALTH DISPARITIES IN WOMEN: A CALL TO ACTION

Understanding cancer-related health disparities in women is an important step toward improving health and quality of life for millions of women in racial and ethnic minority groups. Recent downward trends in incidence of and mortality from most cancers demonstrate that technologies for prevention, early detection, and successful cancer treatment are more readily available than ever before. New and ongoing research efforts need to address social and cultural, as well as biological, determinants of differential cancer profiles (Haynes and Smedley, 1999), and cancer prevention and control programs need to blend culturally sensitive education and awareness efforts with more appropriate and accessible services. Inferior medical care for minority women must be considered unacceptable (Freeman and Payne, 2000). Aggressive and comprehensive plans to expand cancer registries, support intervention research, and improve the translation of research to application are all priorities for the immediate future (NCI, 2001a,b; NIH, 2001).

IDENTIFYING FUTURE NEEDS

Cancer affects women in various population subgroups in distinct ways (Miller et al., 1996). Historically, women have been underrepresented in cancer research and cancer control programs, and often have not

received state-of-the-art cancer treatment. This monograph presents the most extensive and up-to-date information on the cancer experience and its determinants in women from nine racial and ethnic minority groups. It identifies gaps in data, needs for intervention, and valuable examples of successful cancer prevention and cancer control partnerships. The benefits of the work of the many individuals and communities that contributed to this monograph will be seen as this information is used to stimulate action to improve the health and quality of life of women of color.

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Table 1. Population Size, Adult Women, and Change Since 1990 ^{a,b}

	Total in 2000 ^c	Estimated Number of Adult Women ^d	Percent Change Since 1990 (total population)	Main Geographical Locations
Mexican American	21.2 million	10.6 million	52.9% increase	Majority in California, Texas, Illinois, Arizona, New Mexico, and Colorado
Puerto Rican	6 million	2 million	24.9% increase in U.S. mainland	60% in Puerto Rico; 40% in U.S. mainland
Cuban American	1.24 million	515,000	18.1% increase	67% in Florida
African American	36.4 million	15.3 million	21.5% increase	Highest population density in Southeast, Mid-Atlantic, and Northeast
Asian American	11.9 million	4.8 million	72.2% increase	Most in California, Hawaii, and New York
Native Hawaiian	242,100	120,500	8.5% one race Native Hawaiian/Pacific Islander (NH/PI); 129.6% race alone or in combination NH/PI	Most in Hawaii
American Samoan	118,000	40,000	17.2% increase in American Samoa 1990–1995	About 50% in American Samoa; others mainly in California and Hawaii
American Indian	4.1 million	1.5 million	15.3% one race (American Indian/Alaska Native); 92.0% race alone or in combination	Most in a few Western and Southern states
Alaska Native	106,000	24,500	66.9% increase	Most in Alaska, where they are 15% of total population

^a Total U.S. population = 281.4 million, 13.2% increase since 1990 (U.S. Census Bureau, 2001).

^b Based on various sources, mainly 2000 U.S. Census unless not available for the subgroup.

^c Figures given include “race alone or in combination.”

^d Calculated from % female and % over age 18, if available; otherwise, estimated as 33% of total population.

Table 2. Demographics and Social Indicators of Racial/Ethnic Minority Groups Compared to U.S. Women Overall ^a

	Age	Education	Income (percent below federal poverty level)	Health Insurance/Source of Regular Care ^b
Mexican American	Median age 8 years younger than U.S. average (26.1 vs. 34.1)	51.5% high school graduates, about 28% below U.S. total	45.7%	Among least likely to have a regular source of care
Puerto Rican	Younger median age (27.5), but older in Puerto Rico than in U.S. mainland	49% high school graduates	34% in U.S. mainland; 59% in Puerto Rico	About 75% of those in U.S. mainland have a regular source of care
Cuban American	Higher than average median age (41.2)	55.8% high school graduates	14.6%	NA
African American	Younger than U.S. average (details NA)	74.9% high school graduates	23.6%	Less likely to have insurance or a regular source of care
Asian American	Younger than U.S. average, but variable by subgroups (e.g., Japanese older, Vietnamese younger)	86% high school graduates; 44% age 25+ have a bachelor's degree or higher	10.7%	Range from 10% to 40% uninsured; varies by ethnic subgroup/immigrant status
Native Hawaiian	Young; 33% younger than 18 years and only 21% older than 45	Fewer attend college than overall Hawaii population (9% vs. 18%)	14%, highest proportion on public assistance in Hawaii	Most with health insurance, but many underinsured
American Samoan	Median age 22 years, younger than U.S. average	66.5% high school graduates	25.8%	NA; language barriers, many apparently uninsured
American Indian	Median age approximately 28 years; younger than U.S. average	65% high school graduates	25.9%	Indian Health Service used in 35 states, otherwise NA
Alaska Native	Median age 24.4 years; younger than U.S. average	63% high school graduates; only 4% w/college degree	27%	Indian Health Service care; distance to care a problem

^a Compared to total U.S. female population; based on various sources, 2000 U.S. Census when available

^b Based on available data sources; some report only use, but not proportion insured or with regular source of care

Note: NA = Not available

Table 3. Major Historical/Cultural Influences of Racial/Ethnic Minority Groups ^a

	Key Historical Influence(s)	Core Cultural Values	Influences on Health Care Use
Mexican American	Mexicans were early migrants to the Americas; over thousands of years and several civilizations they have adapted and acculturated. Eventual settling in Mexican and border areas, then annexation to the U.S. created adverse social conditions.	Women were held in high regard in Aztec culture, but later excluded during colonial period. Traditional family values survive; loyalty, solidarity, community, and extended family are important, as are cooperation, respect, and the Catholic religion.	Use of <i>curanderismo</i> , herbal treatments, and prayer provides healing on emotional, spiritual, and physical levels. Traditional healing complements modern medicine. Revival of positive cultural attributes holds hope for disease-preventing lifestyles.
Puerto Rican	There are two distinct groups: in Puerto Rico and in the U.S. mainland. Island economy has transformed from rural to urban, service-based economy. Many in the mainland live in Northeast urban centers (e.g., New York, Philadelphia)	Strong family ties, female-headed and single-parent households are common. Lifestyles differ between U.S. mainland and Puerto Rico groups, but core values and religion cut across regions.	Cost, language, and discrimination are often barriers to care in the U.S. mainland. View that physicians are insensitive is often a barrier.
Cuban American	There have been several waves of immigration to the U.S., in 1950s–1960s and later in the 1980s. Most immigrants have been political exiles fleeing an oppressive government regime.	Cuban society is highly patriarchal, with men expected to provide for their families; this seems to have led to greater strain on males. Loyalty to family is an important value.	A sense of “specialness” and take-charge attitude may promote self-care. Early surveys found high fear and fatalism about cancer. Culturally and linguistically targeted health and cancer care programs seem to have been effective.
African American	First brought to the U.S. as slaves, African Americans are historically in a disadvantaged position. Racial integration and equal legal rights are relatively recent occurrences.	African American women are traditionally in a subordinate position. Family and kinship networks are strong, with churches often central to sense of belonging. Women have key role in stability and caring for family and children.	African Americans are more likely to use preventive care if it uses culturally appropriate methods, such as lay peer educators, family and community networks, and community outreach.

Asian American	Wide variations in history exist; more than 25 ethnic groups, ranging from 5th generation to recent immigrants and refugees. Experiences in immigration and acculturation in the U.S. are also widely divergent.	An internal balance or equilibrium is believed to support health; keeping balance between “cold” (yin) and “hot” (yang) elements leads to good health; “chi” is energy circulating through body.	Access to and use of health care are related to cultural, linguistic, and other social barriers. Traditional healers, herbal medicines are common; Asian Americans may feel no need for Westernized preventive care.
Native Hawaiian	Europeans introduced disease and brought cultural and social disruption to the indigenous Polynesian population. Hawaii, its monarchy overthrown by Americans, was annexed to the U.S. in 1898. Inter-marriage has reduced the number of ethnically pure Hawaiians.	Efforts to preserve and enhance cultural heritage and overcome historical displacement have recently intensified. Emphasis is on social harmony (lokahi), family (‘ohana), interdependence/oneness (mana), ties to the land (malama ‘aina). Women are seen as powerful actors.	Provision of culturally acceptable services is a continuing problem. Women respond to personal interaction and communication, problem solving. Traditional healers and remedies are often used. Limited number of Native Hawaiian health professionals is a further barrier.
American Samoan	Residing in Samoan archipelago or U.S. mainland, American Samoans have a Polynesian heritage and village leadership systems. The U.S. has influence, and migration patterns are family related.	Communities are tightly knit, with close ties to churches and families. Some adjustment difficulty occurs among migrants, more in Hawaii than in California locales.	Culturally based beliefs about diseases are common, and many prefer traditional healers and herbalists. Belief in supernatural causes of disease may lead to delay in seeking Western health care.
American Indian	Land base and resources were lost with European migration; displacement, relocation to reservations, epidemics, and poverty ensued.	Male-oriented traditions dominated for many years. View of health is holistic, emphasizing harmony/balance in body, mind, spirit, and emotions.	Illness can have natural/supernatural causes; taboo to talk about cancer owing to “power of language.” Many are reluctant to “look for illness” (screening).
Alaska Native	Indigenous people were disrupted by European/Western culture and commerce.	Alaska Natives have strong family/communal ties, spirituality, and traditional subsistence lifestyle.	Women may neglect their health in favor of their families; traditional healing practices are common, although communication styles may differ.

^a As with any summary of key dimensions of cultures, this table cannot fully convey the depth and variation of influences within these racial/ethnic minority groups. The information included here is respectfully considered a reasonable effort to highlight these factors.

Table 4A. Cancer Incidence per 100,000 Women, White and Minority, 1992–1998^a

	All Cancers	Colon and Rectum	Lung and Bronchus	Breast	Cervix
Alaska Native ^{b,c}	400.1	76.1	57.8	118.1	7.5
American Indian ^{b,c}	140.1	13.5	12.4	36.2	6.2
Asian and Pacific Islander	252.1	31.0	22.7	78.1	10.3
Black	337.6	44.7	45.7	101.5	11.0
Hispanic	237.7	23.2	18.7	68.5	14.4
White	354.4	36.3	43.6	115.5	8.1

^a Age-adjusted to the 1970 U.S. standard population.

^b Data for Alaska Native women derived from American Indian and Alaska Native in the state of Alaska.

^c Data for American Indian women derived from American Indian and Alaska Native in 11 SEER areas (Alaska excluded).

Source: Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute (August 2000 submission).

Table 4B. Cancer Incidence per 100,000 Women, White and Minority, 1988–1992^a

	All Cancers	Colon and Rectum	Lung and Bronchus	Breast	Cervix
Alaska Native ^{b,c}	348.0	67.4	50.6	78.9	15.8
American Indian ^c	180.0	15.3	5.4	31.6	9.9
Black	326.0	45.5	44.2	95.4	13.2
Chinese	213.0	33.6	25.3	55.0	7.3
Filipino	224.0	20.9	17.5	73.1	9.6
Japanese	241.0	39.5	15.2	82.3	5.8
Native Hawaiian	321.0	30.5	43.1	105.6	9.3
Hispanic	243.0	24.7	19.5	69.8	16.2
White	346.0	38.3	41.5	111.8	8.7

^a Age-adjusted to the 1970 U.S. standard population.

^b Data for Alaska Native women derived from American Indian and Alaska Native in the state of Alaska.

^c American Indian statistics derived from American Indian and Alaska Native cases in the state of New Mexico only.

Source: Miller et al., 1996.

Table 5A. Cancer Mortality per 100,000 Women, White and Minority, 1992–1998^{a,b} (Introductory Chapter)

	All Cancers	Colon and Rectum	Lung and Bronchus	Breast	Cervix
Alaska Native ^c	181.4	30.4	44.2	21.5	3.1
American Indian ^d	87.7	8.2	20.1	12.0	2.9
Asian and Pacific Islander	82.4	8.9	15.1	11.0	2.7
Black	166.6	19.6	33.6	31.0	5.7
Hispanic ^e	84.3	8.0	10.9	14.8	3.3
White	138.0	13.9	34.6	24.3	2.4

^a Age-adjusted to the 1970 U.S. standard population.

^b Cause of death information from National Center for Health Statistics categorized according to Surveillance, Epidemiology, and End Results (SEER) Program site groups.

^c Alaska Native statistics derived from American Indian and Alaska Native deaths in the state of Alaska.

^d American Indian statistics derived from American Indian and Alaska Native deaths in all states except Alaska.

^e Data for Hispanic women include deaths in all states except Oklahoma.

Source: SEER Program of the National Cancer Institute (August 2000 submission).

Table 5B. Cancer Mortality per 100,000 Women, White and Minority, 1988–1992^a (Introductory Chapter)

	All Cancers	Colon and Rectum	Lung and Bronchus	Breast	Cervix
Alaska Native ^b	179.0	24.0	45.3	16.0	4.7
American Indian ^c	99.0	5.9	6.4	8.7	8.0
Black	168.0	20.4	31.5	31.4	6.7
Chinese	86.0	10.5	18.5	11.2	2.6
Filipino	63.0	5.8	10.0	11.9	2.4
Japanese	88.0	12.3	12.9	12.5	1.5
Native Hawaiian	168.0	11.4	44.1	25.0	2.8
Hispanic ^d	85.0	8.3	10.8	15.0	3.4
White	140.0	15.3	31.9	27.0	2.5

^a Age-adjusted to the 1970 U.S. standard population.

^b Alaska Native statistics derived from American Indian and Alaska Native deaths in the state of Alaska.

^c American Indian statistics derived from American Indian and Alaska Native deaths in the state of New Mexico only.

^d Data for Hispanic women include deaths in all states except Louisiana, New Hampshire, and Oklahoma.

Source: Miller et al., 1996.

Table 6. Risk Factors and Early Detection for Minority Women ^a

	Mammography Within 2 Years, Age 40 and Over	Papanicolaou Test Within 3 Years	Tobacco Use	Diet and Obesity
Mexican American	59% (1998); lowest use of mammograms among Hispanic women	73% (1998)	Smoking 13.6%; more smoking with increased acculturation	29%–39% overweight and obese; high calorie and fat diet, also high in fruit and vegetables
Puerto Rican	64% (1998)	77% (1998)	30.3% smoking; highest among Hispanic groups	High prevalence of obesity, 28%–39%; increased animal fat intake
Cuban American	62% (1998); previously low, but increased in the 1990s	78% (1998); increased use of Papanicolaou test after outreach programs	24.4% smoking rate	31.6% overweight; a variety of foods eaten by 34.9% and junk food eaten daily by 75.5%
African American	65.9% (1998)	80% (1998)	21% smoking in 1998, down significantly since 1985	66.6% overweight or obese; low intake of vegetables, but high intake of fruit
Asian American	60.7% overall (1998); variable across ethnic subgroups, range 31%–70%	67% overall (1998); ranges 43%–95%; lowest use among Vietnamese, recent immigrants, and non-English speaking	Low smoking rates among females, varying 7%–19% by ethnic group	13%–26% obese, varying across ethnic groups; traditional Asian diet protective; animal fat increased with acculturation
Native Hawaiian	Recent mammogram in 63%; 73% ever had a mammogram	Recent Papanicolaou test in 83%, though rates declined in older women (> age 65)	30% smoking rate, highest in state of Hawaii	More than 60% overweight or obese; high caloric intake; high fat, meat, fruit and vegetable intake
American Samoan	Recent mammogram in most (40%–70%)	Recent Papanicolaou test in 46%	Estimated 11% smoking rate	High rates of massive obesity and related risks; migration accompanied by shift to high-fat foods
American Indian	44.6% (1998)	72% combined American Indian/Alaska Native (1998)	Wide variation across tribes and regions; 20%–37% in recent surveys; smokeless tobacco use a problem	High obesity rates (in one urban area, 69.6% overweight and 41.6% obese)
Alaska Native	No information available separate from American Indians (44.6% in 1998)	62% within 3 years; 15% annual Papanicolaou test (72% American Indian/Alaska Native combined, 1998)	High rates, estimated 35.6% nationwide	More than 60% overweight with 32.8% obese; dietary fat high in nontraditional foods; fish intake also high

^a Information from various sources (see chapters in the monograph and their references).

Table 7. Cancer Data for White and Minority Women: Available Sources and Needs

	SEER Program Data Coverage ^a	Other Sources of Population-Based Cancer Data	Key Issues and Concerns
White	24.5%	NAACR (publication "Cancer in North America")	NA
Mexican American	43.7% for all Hispanics; absolute figures now available for Mexican Americans (2000); age-adjusted data not reported separately	NAACR (publication "Cancer in North America")	No single source of reliable data on cancer rates, mortality, or survival for Mexican American women. Difficult to describe incidence and mortality trends because of old data and their limitations, and lack of age-specific denominators.
Puerto Rican	43.7% for all Hispanics, but not reported separately for Puerto Ricans; absolute figures now available for Puerto Ricans (2000); age-adjusted data not reported separately	Central Cancer Registry; Commonwealth of Puerto Rico Health Department (residents); NAACR (publication "Cancer in North America")	No single source of reliable cancer data for Puerto Rican women. Difficult to describe U.S. mainland/Puerto Rican cancer statistics. Tracking locations and generations would be informative.
Cuban American	43.7% for all Hispanics; absolute figures now available for Cuban Americans (2000); age-adjusted data not reported separately	Florida Cancer Data System; NAACR (publication "Cancer in North America")	No single source of reliable cancer data for Cuban American women. Cannot disaggregate from national SEER Program data; limited geographical scope.
African American	23.3%	NAACR (publication "Cancer in North America")	Stratification by socioeconomic status would help untangle synergistic effects of race, low education, and poverty.
Asian American	74.8% Japanese; 72.7% Filipino; 55.5% Chinese; other ethnic groups unknown	NAACR (publication "Cancer in North America")	Need to disaggregate groups from different countries of origin; insufficient numbers for smaller subgroups.
Native Hawaiian	95% within Hawaii; estimated 75% nationally because of migration from Hawaii	NA	New Native Hawaiian/Other Pacific Islander census category an improvement, but combines both groups. Difficulty estimating denominators; small number of cases of some cancers; geographical limitation; high rate of mixed race complicates interpretation of data.

American Samoan	NA; 69.5% of American Samoan cancer cases in Los Angeles and Hawaii SEER Registries	American Samoa Tumor Registry until 1991; South Pacific Commission summary report (1985)	Incomplete data. Small numbers make calculation of rates difficult. Data lack denominators; American Samoans are not a unique group in U.S. census.
American Indian	41.8% American Indian, Eskimo, and Aleut combined	Indian Health Service clinic health surveillance tracking programs; NAACR (publication "Cancer in North America")	Need to disaggregate American Indians and Alaska Natives. Limited geographical scope; information on combined tribes a concern. Insufficient numbers for drawing conclusions.
Alaska Native	41.8% American Indian, Eskimo, and Aleut combined (Alaska is a Supplemental Registry since 1984)	Indian Health Service clinic health surveillance tracking programs; NAACR (publication "Cancer in North America")	Need to disaggregate American Indians and Alaska Natives. Limited geographical scope; some racial misclassification; calculation of incidence and mortality rates difficult because of limited number of cases.

^a Based on "Number of Persons by Race for SEER Participants—1990 Census Data," reported at <http://seer.cancer.gov>, May 2001.

Note: SEER Program = Surveillance, Epidemiology, and End Results Program; NAACR = North American Association of Central Cancer Registries; NA = not available.